

*C2* 3A (Twice amended) A nucleotide molecule encoding an enzyme having an amino acid sequence set forth in SEQ ID NO: 4; or an enzymatically active fragment [or homologue] thereof.

*C3* 5A (Twice amended) A nucleotide molecule encoding an enzyme having an amino acid sequence set forth in SEQ ID NO: 6; or an enzymatically active fragment [or homologue] thereof.

*C4* 7A (Twice amended) A nucleic acid molecule comprising one or more nucleotide sequences selected from the group consisting of the sequence set forth in SEQ ID NO: 1, the sequence set forth in SEQ ID NO: 3 and the sequence set forth in SEQ ID NO: 5[, a sequence having at least about 80% identity with the sequence set forth in SEQ ID NO: 1, a sequence having at least about 80% identity with the sequence set forth in SEQ ID NO: 3, and a sequence having at least about 80% identity with the sequence set forth in SEQ ID NO: 5 ].

*C5* 4B 5A (Twice amended) A transformed microorganism containing a recombinant DNA plasmid comprising a DNA molecule encoding an enzyme set forth in SEQ ID NO: 2, [a mutant] or an active fragment [or homologue] thereof.

*44* 51 (Twice amended) A transformed microorganism containing a recombinant DNA plasmid comprising a DNA molecule encoding an enzyme set forth in SEQ ID NO: 4, or an active fragment [or homologue] thereof.

*45* 52 (Twice amended) A transformed microorganism containing a recombinant DNA plasmid comprising a DNA molecule encoding an enzyme set forth in SEQ ID NO: 6, or an active fragment [or homologue] thereof.

*46* 53 (Twice amended) A transformed microorganism containing a recombinant DNA plasmid comprising a DNA sequence encoding an enzyme set forth in SEQ ID NO: 2, or an active

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Conclusion*

fragment [or homologue] thereof; a DNA sequence encoding an enzyme set forth in SEQ ID NO: 2, or an active fragment [or homologue] thereof; and a DNA sequence encoding an enzyme set forth in SEQ ID NO: 2, or an active fragment [or homologue] thereof.

Please add the following claims:

- C6*
76. A nucleotide molecule which hybridizes to the sequence set forth in SEQ ID NO: 1 under stringent conditions.
  77. A nucleotide molecule which hybridizes to the sequence set forth in SEQ ID NO: 3 under stringent conditions.
  78. A nucleotide molecule which hybridizes to the sequence set forth in SEQ ID NO: 5 under stringent conditions.

#### REMARKS

Claims 2, 4, 6, 8, 50, 51, 52 and 53 have been amended. Claims 76-78 have been added. Claims 1 and 54-75 have been canceled. However, Applicants reserve the right to prosecute the subject matter of these claims in a related application. Claims 2-53 and 76-78 are pending. The remainder of Applicants' remarks are presented below under appropriate subheadings.

#### New claims

New Claims 76-78 are drawn to nucleic acid molecules which hybridize to the nucleotide sequences set forth in SEQ ID NO: 1, 3 and 5, respectively, under stringent conditions. Support for these claims is found in the specification at page 8, lines 3 to 32. A particular set of stringent hybridization conditions is disclosed in the specification at page 27, lines 23 to 25.

#### Rejection of Claims 2, 4, 6, 8 and 46-53 under 35 U.S.C. § 112, first paragraph

Claims 2, 4, 6, 8 and 46-53 stand rejected under 35 U.S.C. § 112, first paragraph, as

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